

**PATENT**

**1595/SYMBP165USA**

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Date: October 12, 2007

/Casey L. Martin/  
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Applicant(s): Steven M. Sikorski

Examiner: Michelle K. Lay

Serial No: 10/748,992

Art Unit: 2628

Filing Date: December 29, 2003

Title: INVERTED TERMINAL PRESENTATION SCANNER AND HOLDER

**Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

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**APPEAL BRIEF**

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Dear Sir:

Appellants' representative submits this amended brief in connection with an appeal of the above-identified patent application. If any additional fees are due, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [SYMBP165USA].

**I. Real Party in Interest (37 C.F.R. §41.37(c)(1)(i))**

The real party in interest in the present appeal is Symbol Technologies, Inc., the assignee of the present application.

**II. Related Appeals and Interferences (37 C.F.R. §41.37(c)(1)(ii))**

Appellants, appellants' legal representative, and/or the assignee of the present application are not aware of any appeals or interferences which will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. Status of Claims (37 C.F.R. §41.37(c)(1)(iii))**

Claims 18-27 stand rejected by the Examiner. The rejection of claims 18-27 is being appealed.

**IV. Status of Amendments (37 C.F.R. §41.37(c)(1)(iv))**

No amendments had been submitted after the Final Office Action.

**V. Summary of Claimed Subject Matter (37 C.F.R. §41.37(c)(1)(v))****A. Independent Claim 18**

Independent claim 1 and its corresponding dependent claims relate to a mobile scanning terminal system (*See* Fig. 1, element 100; Specification pp. 7-11), comprising: an image capture component (*See* Fig. 1, element 170; Specification p. 8) that captures optical signals related to a product, the capture corresponds to inversion or rotation of the system; an image analysis component (*See* Fig. 8, element 820; Fig. 9, element 920; Specification pp. 20-21) that analyzes and determines product identity based at least in part upon the optical signals; and a display (*See* Fig. 2, element 210; Specification p. 12) that displays information associated with the product and inverts or rotates the information to an optimal viewing orientation, regardless of the orientation of the system, thereby efficiently relaying data to the user.

**B. Independent Claim 29**

Independent claim 29 and its corresponding dependent claims relate to a mobile scanning terminal system (*See* Fig. 1, element 100; Specification pp. 7-11), comprising: an image capture component (*See* Fig. 1, element 170; Specification p. 8) that captures a scanned image of a product, the image capture corresponds to inversion or rotation of the system; a data retrieval component (*See* Specification pp. 10, 13) for retrieving product data relevant to a scanned product; a display component (*See* Fig. 2, element 210; Specification p. 12) that displays the scanned image or retrieved product data to a user; and an orientation component (*See* Fig. 4, element 420; Specification p. 17) that facilitates adjusting a rotational angle of the scanned image or product data within the display component to a desirable viewing position.

**C. Independent Claim 37**

Independent claim 37 relates to a mobile scanning terminal method, comprising: capturing a scanned image of a product (*See* Fig. 3, element 302), the image capture corresponds to inversion or rotation of a display (*See* Fig. 3, element 304); retrieving product data relevant to a scanned product (*See* Fig. 3, element 302); displaying the scanned image or retrieved product data to a user (*See* Fig. 3, element 308) ; and adjusting a rotational angle of the scanned image or product data to a desirable viewing position (*See* Fig. 3, element 308).

**VI. Grounds of Rejection to be Reviewed on Appeal (37 C.F.R. §41.37(c)(1)(vi))**

**A.** Whether claim 22 is indefinite under 35 U.S.C. § 112.

**B.** Whether claims 18-21, 23, 24 and 29-37 are obvious under 35 U.S.C. § 103(a) in view of Browning (US 6,707,581 B1) in view of Manchester (US 2004/0201595 A1).

**C.** Whether claim 22 is obvious under 35 U.S.C. § 103(a) in view of Browning in view of Manchester, and further in view of Hoon *et al.* (US 2002/0186878).

**D.** Whether claims 26-28 are obvious 35 U.S.C. § 103(a) in view of Browning in view of Manchester, and further in view of Melaku *et al.* (US 2003/0144793 A1).

**E.** Whether claims 26-28 are obvious under 35 U.S.C. §103(a) in view of Browning, in view of Manchester, and further in view of Cardno (US 2004/0036712 A1).

## **VII. Argument (37 C.F.R. §41.37(c)(1)(vii))**

### **A. Rejection of Claim 22 Under 35 U.S.C. §112**

Claim 22 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Examiner contends that it is unclear how an image captured is already known to be a damaged good before the image is analyzed. Applicants' representative respectfully notes that claim 22 recites scanning optical signals that relate to at least one physical image of a damaged product. One example of an optical signal is a bar code (or an equivalent symbol), which is fully capable of including an indication that the product is damaged. Furthermore, the image capture component teaches many forms of image capture, including photographic image capture. A photograph is capable of demonstrating damage to a product. Therefore, a person of ordinary skill in the art would appreciate that the applicants have clearly indicated the claimed subject matter. Accordingly, reversal of this rejection is respectfully requested.

### **B. Rejection of Claims 18-21, 23, 24 and 29-37 Under 35 U.S.C. §103(a)**

Claims 18-21, 23, 24 and 29-37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Browning (US 6,707,581 B1) in view of Manchester (US 2004/0201595 A1). It is respectfully submitted that this rejection should be reversed for at least the following reasons. Browning and Manchester, individually or in combination, do not teach or suggest all the claim aspects of the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or

motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The subject invention relates to systems and methods for facilitating data capture and/or display of data to users (*See* Abstract). In particular, a mobile scanning terminal system is provided that can facilitate image capture for analysis. Additionally, the mobile scanning terminal system provides for image capture corresponding to the inversion and/or rotation of a display (*See* Specification pg. 10, ln. 31 and pg. 11, ln. 1-11). To this end, amended independent claim 18 (and similarly amended independent claims 29 and 37) recites *an image capture component that captures optical signals related to a product, **the capture corresponds to inversion or rotation of the system.*** Browning and Manchester, alone or in combination, fail to teach or suggest such claimed aspects.

Browning relates to a handheld PDA or the like that scans text or a barcode and converts the scanned image into alphanumeric text or other computer-readable information. An information retrieval agent then searches for relevant information on the Internet or other network (*See* col. 2, ln. 38-49). However, as acknowledged by the Examiner, Browning fails to teach or suggest orienting images on a display (*See* Office Action dated March 1, 2007, pg. 5). Moreover, Browning is silent with regard to *an image capture component that captures optical signals related to a product, **the capture corresponds to inversion or rotation of the system.*** Examiner contends that in order to correctly receive the correct information related to the barcode, the method/system of Browning must be able to rotate/invert the barcode when the user is holding the handheld scanner at odd angles or even upside down, and thus it can capture the correct orientation of the barcode regardless of how the user is holding the handheld scanner. Applicants' representative respectfully disagrees with this statement. Examiner cites no passage of Browning describing altering orientation, and simply concludes that in order to function,

it must be able to perform this task. Moreover, Browning indicates that the scanner is in fact quite unable to perform the task of re-orientation. Browning allows a user to reject a scanned image if it is read unreliably because *the scanner was skewed relative to a line of printed text* (See col. 3, l. 57).

In order to compensate for the aforementioned deficiencies of Browning, Examiner has offered Manchester. Manchester relates to a method for orienting a display image which includes sensing at least one characteristic of an object and determining the orientation of the object from at least one of the sensed characteristics (See paragraph 5). However, Manchester does not teach or suggest *an image capture component that captures optical signals related to a product*, let alone *the capture corresponds to inversion or rotation of the system* as recited in the subject claims.

The claimed subject as recited in the subject claims can provide image capturing, thereby enabling image analysis. Additionally, the image capture can correspond to the inversion and/or rotation of the system. For example, a user A can capture an image B while the mobile scanning terminal is upside down. The image capture can correspond to the inversion and/or rotation of the system. Thus, if user A sends the captured image B to another entity, the image B will be seen as right-side up, regardless of the orientation of the mobile scanning terminal when image B was captured (See Specification pg. 11, ll. 5-11). Manchester fails to teach or suggest such aspect as claimed.

In view of at least the foregoing, it is readily apparent that Browning and Manchester, alone or in combination, do not teach or suggest the subject invention as recited in independent claims 18, 29 and 37 (and associated dependent claims). Accordingly, this rejection should be reversed.

**C. Rejection of Claim 22 and 25 Under 35 U.S.C. §103(a)**

Claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over Browning in view of Manchester, and further in view of Hoon *et al.* (US 2002/0186878). It is respectfully submitted that this rejection should be reversed for at least the following reasons. Browning, Manchester and Hoon *et al.*, individually or in combination, do not teach or suggest all the claim limitations set forth in the subject claims. In particular, Wilz *et al.* does not make up for the aforementioned deficiencies of Browning and

Manchester with respect to independent claim 18 (from which claim 22 and 25 depend). Therefore, the subject invention as recited in claims 22 and 25 is not obvious over the combination of Browning, Manchester and Hoon *et al.* Thus, it is respectfully requested that this rejection be reversed.

**D. Rejection of Claim 26-28 Under 35 U.S.C. §103(a)**

Claim 26-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Browning in view of Manchester, and further in view of Melaku *et al.* (US 2003/0144793 A1). It is submitted that this rejection should be reversed for at least the following reasons. Browning, Manchester and Melaku *et al.*, individually or in combination, do not teach or suggest all the claim aspects set forth in the subject claims. In particular, Melaku *et al.* does not make up for the aforementioned deficiencies of Browning and Manchester with respect to independent claim 18 (from which claim 26-28 depend). Accordingly, claim 26-28 is allowable for at least the same reasons discussed *supra*. Hence, this rejection should be reversed.

**E. Rejection of Claims 26-28 Under 35 U.S.C. §103(a)**

Claims 26-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Browning in view of Manchester, and further in view of Cardno (US 2004/0036712 A1). It is respectfully submitted that this rejection should be reversed for at least the following reasons. Browning, Manchester and Cardno, individually or in combination, do not teach or suggest each and every element set forth in the subject claims. In particular, Cardno does not make up for the aforementioned deficiencies of Browning and Manchester with respect to independent claim 18 (from which claims 26-28 depend). Therefore, the subject invention as recited in claims 26-28 is not obvious over the combination of Browning, Manchester and Cardno. Thus, it is respectfully requested that this rejection be reversed.

**F. Conclusion**

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 18-27 be reversed.

A credit card payment form is filed concurrently herewith in connection with all fees due regarding this document. In the event any additional fees may be due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [SYMBP165USA].

Respectfully submitted,  
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**VIII. Claims Appendix (37 C.F.R. §41.37(c)(1)(viii))**

18. A mobile scanning terminal system, comprising:  
an image capture component that captures optical signals related to a product, the capture corresponds to inversion or rotation of the system;  
an image analysis component that analyzes and determines product identity based at least in part upon the optical signals; and  
a display that displays information associated with the product and inverts or rotates the information to an optimal viewing orientation, regardless of the orientation of the system, thereby efficiently relaying data to the user.
19. The mobile scanning terminal system of claim 18, the optical signals comprise a dataform or an image of the product.
20. The mobile scanning terminal system of claim 18, the information associated with the product comprises text, a stored image, or an image of the product captured by the image capture component.
21. The mobile scanning terminal system of claim 18, the display provides for inverting and/or rotating the information from 0 degrees to any desired rotation angle.
22. The mobile scanning terminal system of claim 18, the optical signals relate to at least one physical image of a damaged product, the physical image is analyzed for determination of the damaged product.
23. The mobile scanning terminal system of claim 18, further comprising an user interface comprising a keypad, a touch screen or an audio/voice recognition component that provides feedback or input to the system.
24. The mobile scanning terminal system of claim 18, further comprising an audio or voice recognition component that provides feedback or input.

25. The mobile scanning terminal system of claim 18, further comprising a data store that provides user defined parameters or interrogation questions to be utilized for analysis or determination of the product.

26. The mobile scanning terminal system of claim 18, the image analysis component compares optical signals from a product with optical signals from a location to determine the product is desirably placed in a proper location to effectively enable efficient shopping.

27. The mobile scanning terminal system of claim 26, the image analysis component indicates whether a product is in a correct location and relays to a user a correct product location.

28. The mobile scanning terminal system of claim 26, the image analysis component compares a product at a location with a product history in a data store to determine whether a product should be reordered.

29. A mobile scanning terminal system, comprising:  
an image capture component that captures a scanned image of a product, the image capture corresponds to inversion or rotation of the system;  
a data retrieval component for retrieving product data relevant to a scanned product;  
a display component that displays the scanned image or retrieved product data to a user; and  
an orientation component that facilitates adjusting a rotational angle of the scanned image or product data within the display component to a desirable viewing position.

30. The mobile scanning terminal system of claim 29, the product data comprises a stored picture of the scanned product that is relayed to the display component.

31. The mobile scanning terminal system of claim 29, the product data comprises product ordering data regarding the scanned product including dates of previous orders, number of products included within each order, trends, market share of the scanned product and manufacturer information.
32. The mobile scanning terminal system of claim 29, further comprising a data store for retaining the product data relevant retrieved by the data retrieval component.
33. The mobile scanning terminal system of claim 32, the data store further comprising an image recognition array for identifying at least one scanned product.
34. The mobile scanning terminal system of claim 29, the orientation component further comprising an artificial intelligence component that facilitates customizing a viewing position according to a particular user state and context.
35. The mobile scanning terminal system of claim 34, further comprising a sensor component that operates conjunctively with the orientation component and the artificial intelligence component to enable optimized viewing position of scanned images or product data displayed within the display component.
36. The mobile scanning terminal system of claim 35, the optimized viewing position is determined from determining a distance or sightline between the display component and a user.
37. A mobile scanning terminal method, comprising:  
capturing a scanned image of a product, the image capture corresponds to inversion or rotation of a display;  
retrieving product data relevant to a scanned product;  
displaying the scanned image or retrieved product data to a user; and  
adjusting a rotational angle of the scanned image or product data to a desirable viewing position.

**IX. Evidence Appendix (37 C.F.R. §41.37(c)(1)(ix))**

None.

**X. Related Proceedings Appendix (37 C.F.R. §41.37(c)(1)(x))**

None.